

Background on State Nutrient Reduction Approaches

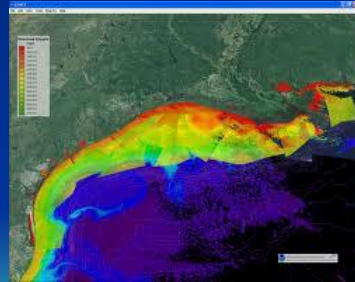
Ohio's Nutrient Forum
Visioning Workshop
November 14, 2012

A Desert in the Gulf of Mexico



A Desert in the Gulf of Mexico

- Hypoxic zone size influenced by:
 - Nutrient inputs (Human)
 - Streamflow (Human)
 - Storm conditions
 - Climate/climate change



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Progress

- Nutrient loadings to the Gulf:
 - Average TN > 1.5 MM metric tons/yr (1980 to 1996); current average ~1.3 MM metric tons/yr
 - Net TN steady over past decade
 - Net TP at zero now for much of the basin
- Soil erosion from water is decreasing with improved agricultural practices
 - 42% decrease in soil losses between 1982 and 2003

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Institutional Challenges

- **Multiple existing plans with impractical timeframes resources needs**

TMDLs, 9-element plan, State & Local ODNR plans, Governor's plan, RAPs

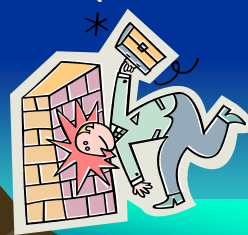
- **Segmented state leadership, authority and missions**

Federal-State-Local; Environmental – Agriculture– Natural Resources (different programs, goals, resource limitations)

- **Incomplete data due to USDA 1619 concerns (for example GLSM over 700 practices)**

- **Unwillingness to “own the load”**

Farm lobby and the realities of drainage, industrial and local units of governments



Basic Premise

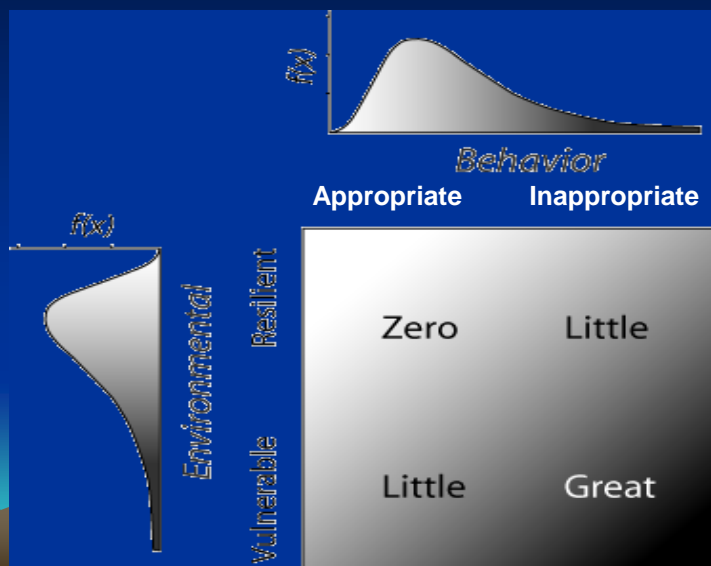
1. **Nutrient pollution is a reality;** agriculture must manage nutrients more effectively
2. While multi-jurisdictional water bodies effort Gulf of Mexico are driving= federal involvement ; Local problems should be driving implementation (local goals)
3. **The problem is more than nutrients**



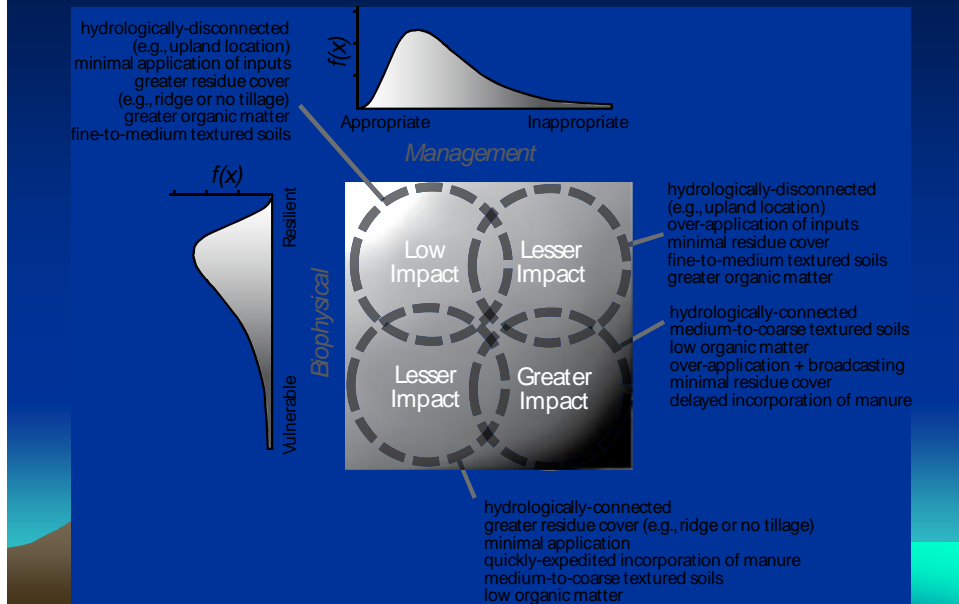
What are we looking for from States:

- Solving local nutrient problem first (where are they, how severe, etc)
- Traditional water programs placing a priority on nutrients (targeting example)

Disproportionality

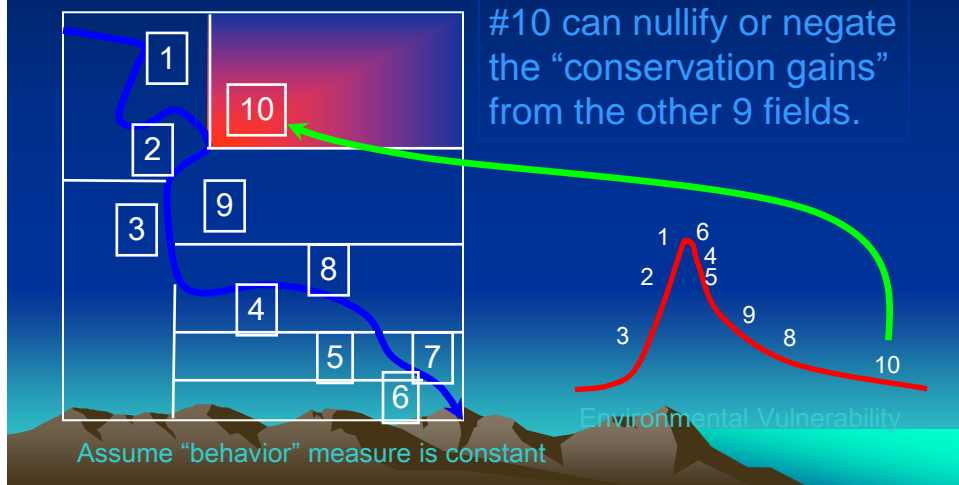


Disproportionality

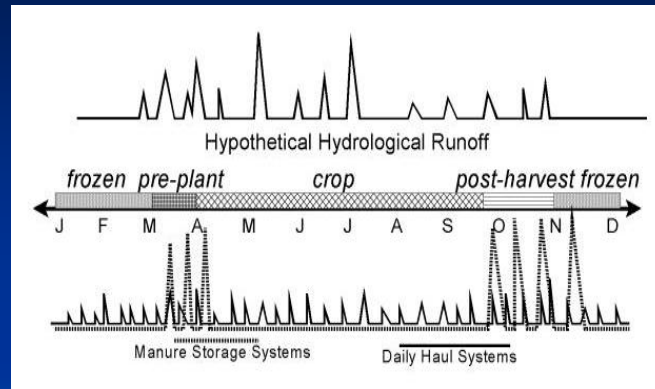


Example of Diverse Biophysical Resources

Loading in the XYZ Watershed

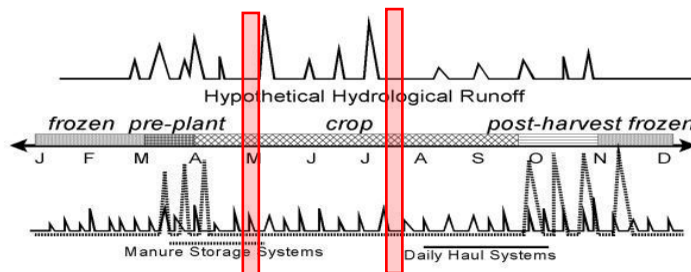


Temporal Scales of Management

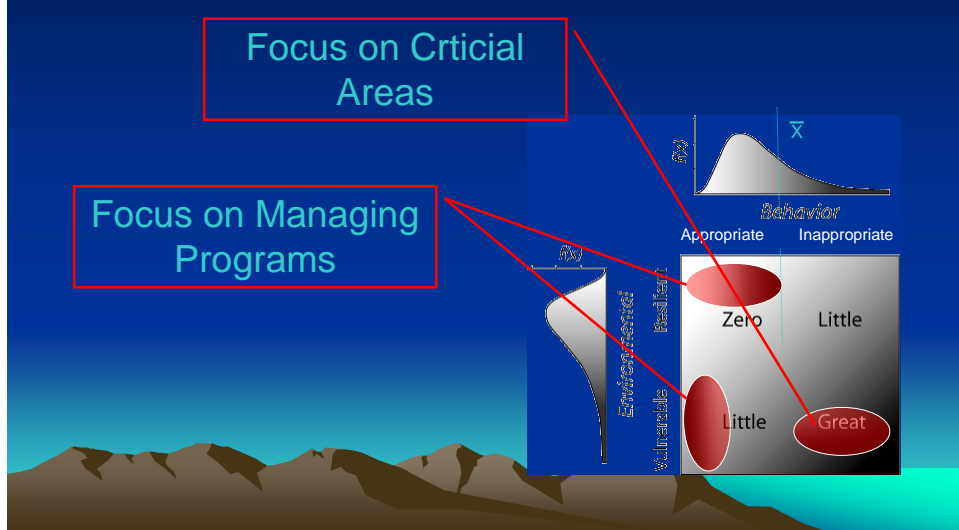


Variation in climate and hydrologic patterns induce changes in the spatial and temporal attributes of manure distribution decisions.

Same Behavior, Different Time



What Should be the Focus of NPS Control Efforts?



What are we looking for from States:

- At the watershed scale there should be one plan (GLSM)
- What other Programs/tools (Gov't/NGO) should be included (4Rs, TNC)
- Will we be able to tell what has been done, by who, where and the impact
- Are we preventing problems while we're fixing them
- Leadership by the private sector (Indiana example)

What are we looking for from States (cont'd)

- All major sources of nutrients must be held accountable for their contributions to the problem.
- Combating the challenge of nutrient pollution will require a profound long-term change in how we implement programs, share accountability between sources, within watersheds, and across state lines.
- Leadership is vital to supporting and requiring a more consistent and full utilization of existing tools from state to state and source to source
- Build on what has worked

What has been successful when addressing nutrients

- Local leadership is the key in changing behavior.
- Private sectors needs to be involved.
- Monitoring, planning, implementation and evaluation need to be integrated
- Planning identifies where & when to Target efforts
- It is an ongoing commitment

What Next!!

- Getting Started:
 - Understand your state's nutrient loading issues
 - Think outside the box
 - Pay attention to state and federal nutrient initiatives;
 - Engage state and federal regulators on nutrient issues while the plan is being developed
 - Begin to implement the plan for nutrient management



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QUESTIONS?

